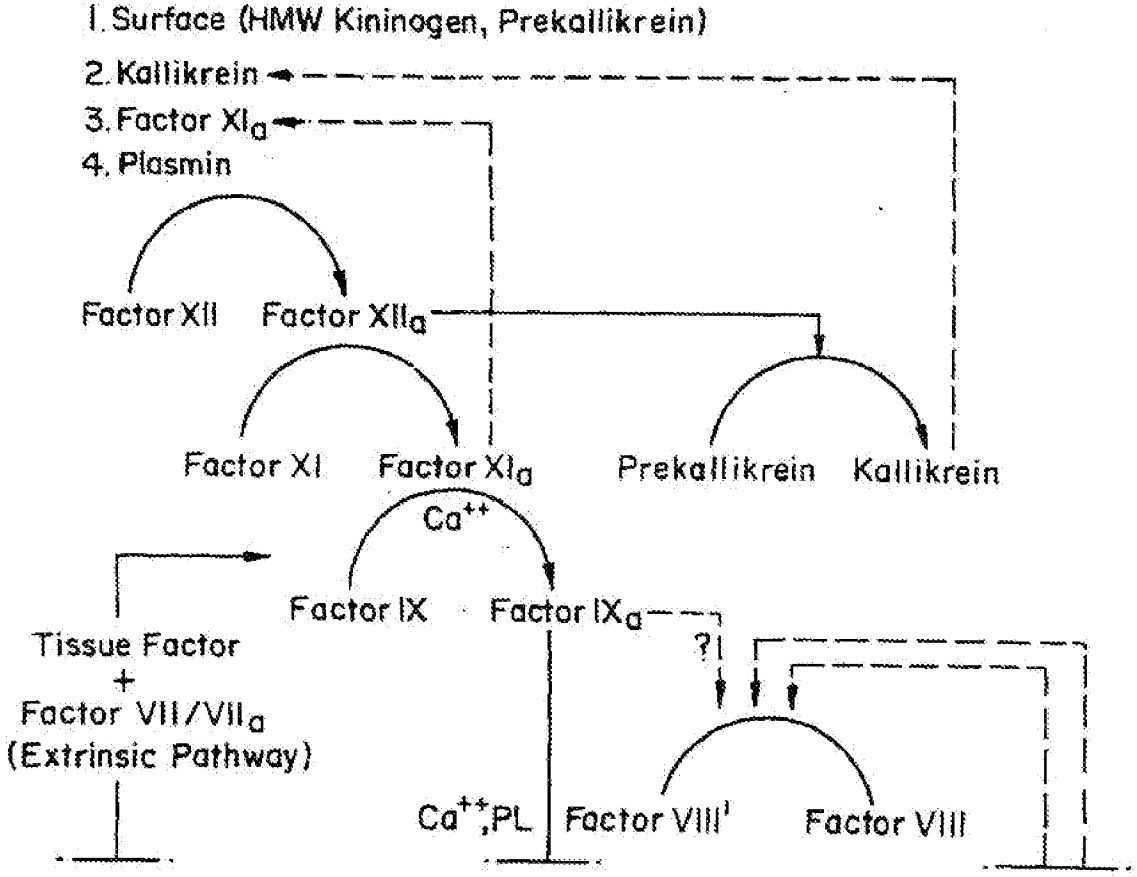
Fig. 1(I).

SURFACE-MEDIATED ACTIVATION OF BLOOD COAGULATION
(INTRINSIC SYSTEM)



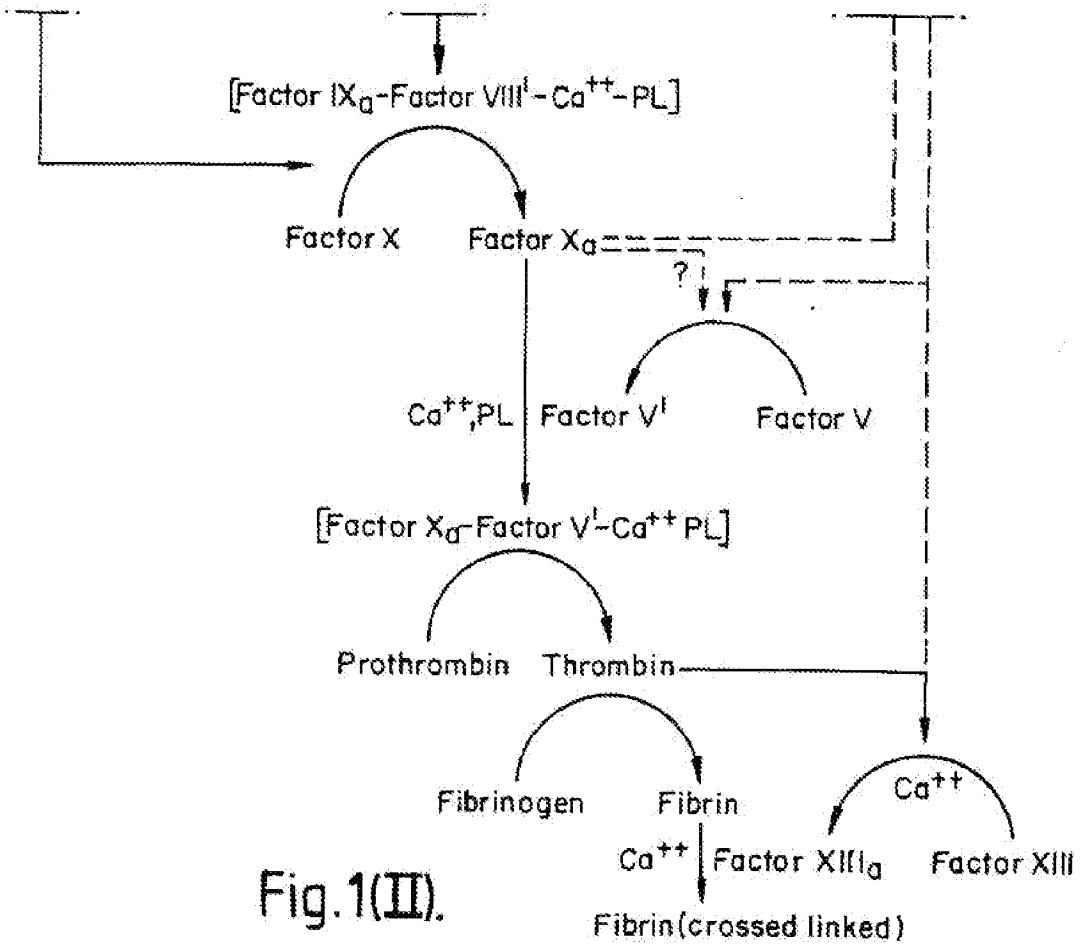

[Factor IXa-Factor VIII'-Ca++-PL]
Factor X
Factor Xa
?
Ca++,PL
Factor V'
Factor V
[Factor Xa-Factor V'-Ca++ PL]
Prothrombin
Thrombin
Fibrinogen
Fibrin
Ca++
Ca++
Factor XIII'a
Factor XIII
Fibrin(crossed linked)

Fig. 1(II).

Fig. 2a.

```
1   CTCGCACTCCCTCTGGCCGGCCCAGGGCGCCTTCAGCCCAACCTCCCCAGCCCCCACGGGCGGCCACGGAACCCGCTCCATCTCGCCGCCAACTGGTAGAC
    GAGCGTGAGGGAGACCGGCCCGGGTCCCGCGGGAAGTYCGGGTTGGAGGGGTCGGGGTGCCCGCGGTGCCTTGGGCCAGCCTAGAGCGGCGGTTGACCATCTG

100 ATG GAG ACC CCT GCC TGG CCC CCG GTC CCG CGC CCC GAG ACC GCC GTC GCT CGG ACG CTC CTG CTC GGC TGG GTC
    TAC CTC TGG GGA CGG ACC GCG CAG GSC GCG GGG CTC TGG CGG CAG CGA GCC TGC GAG GAC GAG CCG ACC CAG
-32 Met Glu Thr Pro Ala Trp Pro Arg Val Pro Arg Pro Glu Thr Ala Val Ala Arg Thr Leu Leu Leu Gly Trp Val

175 TTC GCC CAG GTG GCC GCT TCA GGC ACT ACA AAT ACT GTG GCA GCA TAT AAT TTA ACT TGG AAA TCA ACT AAT
    AAG CGG GTC CAC CGG CGA AGT CCG TGA TTA TGA CAC CGT CGT ATA TTA AAT TGA ACC TTT AGT TGA TTA
 -7 Phe Ala Gln Val Ala Gly Ala Ser Gly Thr Thr Asn Thr Val Ala Ala Tyr Asn Leu Thr Trp Lys Ser Thr Asn

250 TTC AAG ACA ATT TTG GAG TGG GAA CCC AAA CCC GTC AAT CAA GTC TAC ACT GTT CAA ATA AGC ACT AAG TCA GGA
    AAG TTC TGT TAA AAC CTC ACC CTT GGG TTT GGG CAG TTA GTT CAG ATG TGA CAA GTT TAT TCG TGA AGT CCT
 19 Phe Lys Thr Ile Leu Glu Trp Glu Pro Lys Pro Val Asn Gln Val Tyr Thr Val Gln Ile Ser Thr Lys Ser Gly

325 GAT TGG AAA AGC AAA TGC TTT TAC ACA ACA GAC ACA GAG TGT GAC CTC ACC GAC GAG ATT GTG AAG GAT GTG AAG
    CTA ACC TTT TCG TTT ACG AAA ATG TGT TGT CTG TGT CTC ACA CTG GAG TGG CTG CTC TAA CAC TTC CTA CAC TTC
 44 Asp Trp Lys Ser Lys Cys Phe Tyr Thr Thr Asp Thr Glu Cys Asp Leu Thr Asp Glu Ile Val Lys Asp Val Lys

400 CAG ACG TAC TTG GCA CGG GTC TTC TCC TAC CCG GCA GGG AAT GTG GAG AGC ACC GGT TCT GCT GGG GAG CCT CTG
    GTC TGC ATG AAC CGT GCC CAG AAG AGG ATG GGC CGT CCC TTA CAC CTC TCG TGG CCA AGA CGA CCC CTC GGA GAC
 69 Gln Thr Tyr Leu Ala Arg Val Phe Ser Tyr Pro Ala Gly Asn Val Glu Ser Thr Gly Ser Ala Gly Glu Pro Leu

475 TAT GAG AAC TCC CCA GAG TTC ACA CCT TAC CTG GAG ACA AAC CTC GGA CAG CCA ACA ATT CAG AGT TTT GAA CAG
    ATA CTC TTG AGG GGT CTC AAG TGT GGA ATG GAC CTC TGT TTG GAG CCT GTC GGT TGT TAA GTC TCA AAA CTT GTC
 94 Tyr Glu Asn Ser Pro Glu Phe Thr Pro Tyr Leu Glu Thr Asn Leu Gly Gln Pro Thr Ile Gln Ser Phe Glu Gln

550 GTG GGA ACA AAA GTG AAT GTG ACC GTA GAA GAT GAA CGG ACT TTA GTC AGA AGG AAC AAC ACT TTC CTA AGC CTC
    CAC CCT TGT TTT CAC TTA CAC TGG CAT CTT CTA CTT GCC TGA AAT CAG TCT TCC TTG TTG TGA AAG GAT TCG GAG
119 Val Gly Thr Lys Val Asn Val Thr Val Glu Asp Glu Arg Thr Leu Val Arg Arg Asn Asn Thr Phe Leu Ser Leu

625 CGG GAT GTT TTT GGC AAG GAC TTA ATT TAT ACA CTT TAT TAT TGG AAA TCT TCA AGT TCA GGA AAC AAA ACA GCC
    GCC CTA CAA AAA CCG TTC AAT TAA ATA TGT GAA ATA ATA ACC TTT AGA AGT TCA AGT CCT TTC TTT TGT CGG CTA
144 Arg Asp Val Phe Gly Lys Asp Leu Leu Ile Tyr Thr Leu Tyr Tyr Trp Lys Ser Ser Ser Ser Gly Lys Lys Thr Ala

700 AAA ACA AAC ACT AAT GAC TTT TTG ATT GAT GTG GAT AAA GGA GAA AAC TAC TGT TTC AGT GTT CAA GCA GTG ATT
    TTT TGT TTG TGA TTA CTG AAA AAC TAA CTA CAC CTA TTT CCT CTT TTG ATG ACA AAG TCA CAA GTT CGT CAC TAA
169 Lys Thr Asn Thr Asn Glu Phe Leu Asp Val Asp Lys Gly Glu Asn Tyr Cys Phe Ser Val Gln Ala Val Ile

775 CCC TCC CGA ACA GTT AAC CGG AAG AGT ACA GAC AGC CCG GTA GAG TGT ATG GGC CAG GAG AAA GGG GAA TTC AGA
    GGG AGG GCT TGT CAA TTG GCC TTC TCA TGT CTG TCG GGC CAT CTC ACA TAC CCG GTC CTC TTT CCC CTT AAG TCT
194 Pro Ser Arg Thr Val Asn Arg Lys Ser Thr Asp Ser Pro Val Glu Cys Met Gly Gln Glu Lys Gly Glu Phe Arg

850 GAA ATA TTC TAC ATC ATT GGA GCT GTG GTA TTT GTG GTC ATC ATC CTT GTC ATC ATC CTG GCT ATA TCT CTA CAC
    CTT TAT AAG ATG TAG TAA CCT CGA CAC CAT AAA CAC CAG TAG TAG GAA CAG TAG TAG GAC CGA TAT AGA GAT GTG
219 Glu Ile Phe Tyr Ile Ile Gly Ala Val Val Phe Val Val Ile Ile Leu Leu Val Ile Ile Leu Ala Ile Ser Leu His

925 AAG TGT AGA AAG GCA GGA GTG GGG CAG AGC TGG AAG GAG AAC TCC CCA CTG AAT GTT TCA TAA    AGGAAGCACTGTTGG
    TTC ACA TCT TTC CGT CCT CAC CCC GTC TCG ACC TTC CTC TTG AGG GGT GAC TTA CAA AGT ATT    TCCTTCGTGACAACC
244 Lys Cys Arg Lys Ala Gly Val Gly Gln Ser Trp Lys Glu Asn Ser Pro Leu Asn Val Ser OC*
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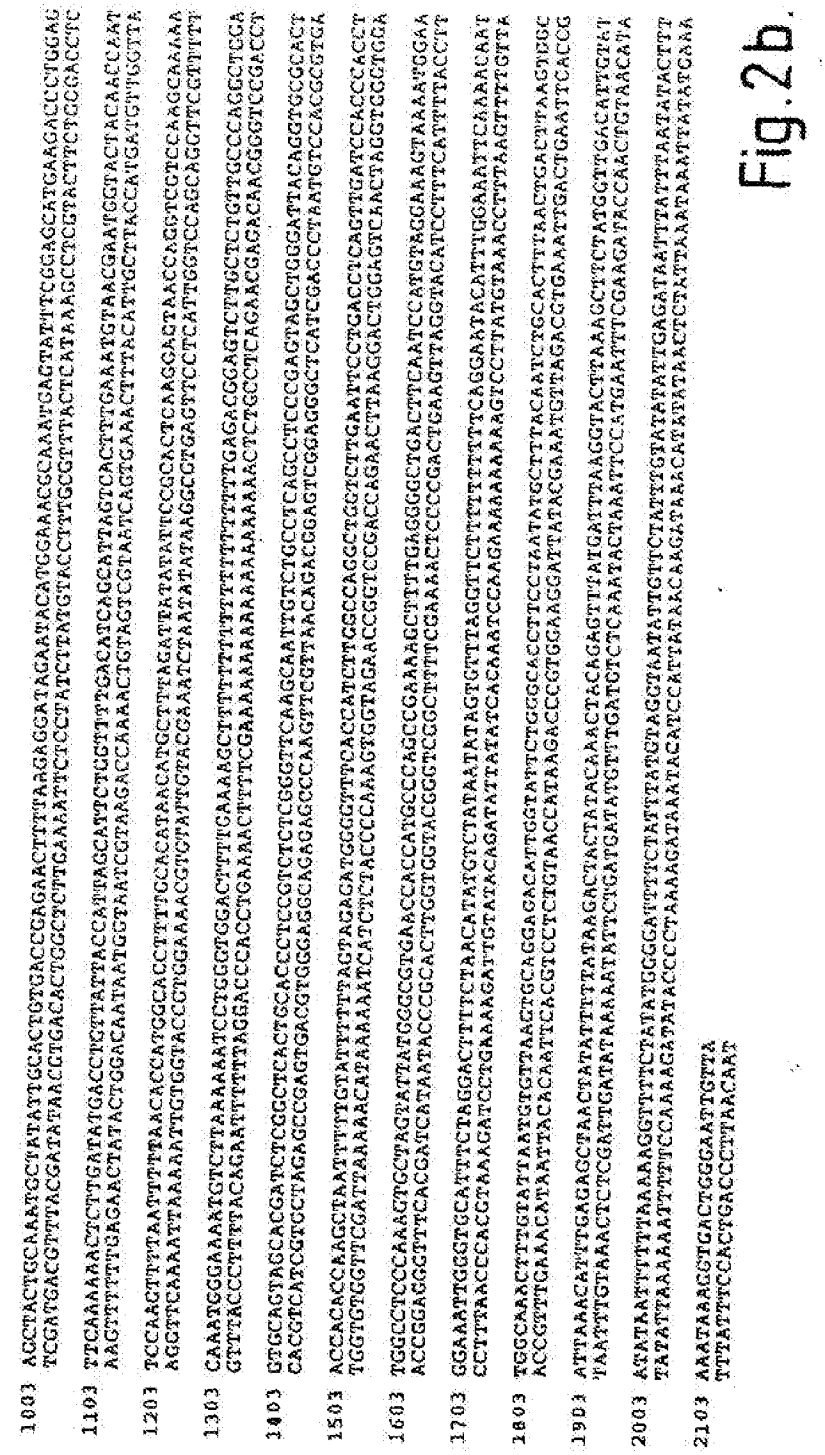

Fig. 2b.

Fig. 3a.

hinPI
hhaI
nlaIV
hinPI
hhaI
nlaIV
narI
haeII
banI
sau96I
narI
haeII
banI
mspI
hpaII
nae1
scrFI
haeIII
bstNI
mnlI
bglI
ahaII
nlaIV
sau3AI
dpnI
taqI
fnu4HI
acc1 nlaIII
mnlI eae1 haeIII ahaII
1 CTCGCACTCC CTCTGGCCGG CCCAGGGCGC CTTCAGCCCA ACCTCCCCAG CCCCACGGGC GCCACGGAAC CCGCTCGATC TCGCCGCCAA CTGGTAGACA
GAGCGTGAGG GAGACCGGCC GGGTCCCGCG GAAGTCGGGT TGGAGGGGTC GGGGTGCCCG CGGTGCCTTG GGCGAGCTAG AGCGGCGGTT GACCATCTGT
scrFI
ncil
mspI
hpaII
smaI sau96I
scrFI
sau96I ppuMI
nlaIV nlaIV
haeIII eco0 thaI
scrFI ncil nlaIV hinPI
bstNI avaI avaII hhaI avaI
101 TGGAGACCCC TGCCTGGCCC CGGGTCCCGC GCCCCGAGAC CGCCGTCGCT CGGACGCTCC TGCTCGGCTG GGTCTTCGCC CAGGTGCCCG GCGCTTCAGG
ACCTCTGGGG ACGGACCGGG GCCCAGGGCG CGGGGCTCTG GCGGCAGCGA GCCTGCGAGG ACGAGCCGAC CCAGAAGCGG GTCCACCGGC CGCGAAGTCC
hgaI
mboII bstNI eae1 haeIII
bglI
fnu4HI
bbvI
201 CACTACAAAT ACTGTGGCAG CATATAATTT AACTTGGAAA TCAACTAATT TCAACACAAT TTTGGAGTGG GAACCCAAAC CCGTCAATCA ACTCTACACT
GTGATGTTTA TGACACCGTC GTATATTAAA TTGAACCTTT AGTTGATTAA AGTTCTGTTA AAACCTCACC CTTGGGTTTG GGCAGTTAGT TCAGATGTGA
nlaIV
dde1
301 GTTCAAATAA GCACTAAGTC AGGAGATTGG AAAAGCAAAT GCTTTTACAC AACAGACACA GAGTGTGACC TCACCGACGA GATTGTGAAG GATGTGAAGC
CAAGTTTATT CGTGATTCAG TCCTCTAACC TTTTCGTTTA CGAAAATGTG TTGTCTGTGT CTCACACTGG AGTGGCTGCT CTAACACTTC CTACACTTCG
mspI
hpaII
scrFI
ncil
mspI
hgiAI hpaII
bsp1286
dra III
mnlI
nlaIV
hphI
fokI
mnlI
xsaI
mboII
401 AGACGTACTT GGCACGGGGTC TTCTCCTACC CGGCAGGGAA TGTGGAGAGC ACCGGTTCGG CTGGGGAGCC TCTGTATGAC AACTCCCCAG AGTTCACACC
TCTGCATGAA CCGTGCCCAG AAGAGGATGG GCCGTCCCTT ACACCTCTCG TGGCCAAGAC GACCCCTCGG AGACATACTC TTGAGGGGTC TCAAGTGTGG
scrFI
bstNI
mnlI
501 TTACCTGGAG ACAAACCTCG GACAGCCAAC AATTCAGAGT TTTGAACAGG TGGGAACAAA AGTGAATGTG ACCGTAGAAG ATGAACGGAC TTTAGTCAGA
AATGGACCTC TGTTTGGAGC CTGTCGGTTG TTAAGTCTCA AAACTTGTCC ACCCTTGTTT TCACTTACAC TGGCATCTTC TACTTGCCTG AAATCACTCT

Fig. 3b.

"Methods and Deoxyribonucleic Acid For the Preparation of Tissue Factor Protein"
By: Richard M. Lawn, Gordon A. Vehar, and Karen L. Wion
U. S. Serial No. 08/444,934 Filed May 22, 1995
Attorney Docket No. MSM 101 CON C

Fig. 3c

scrFI
bstNI
haeIII
hae1
eae1
hpHI
hal1
ecoRI
mnlI
ddel
dpnI
sau3AI
styI
aluI
mnlI
haeIII
haeI
nlaIII
aluI
hindIII
mnlI
nlaIII
ddel
nlaIV
bani
bsp1286
xsaI
hindIII
aluI
hinc11
aluI
dral
ahaIII
sspI
dral
ahaIII
hphI

Fig.4.

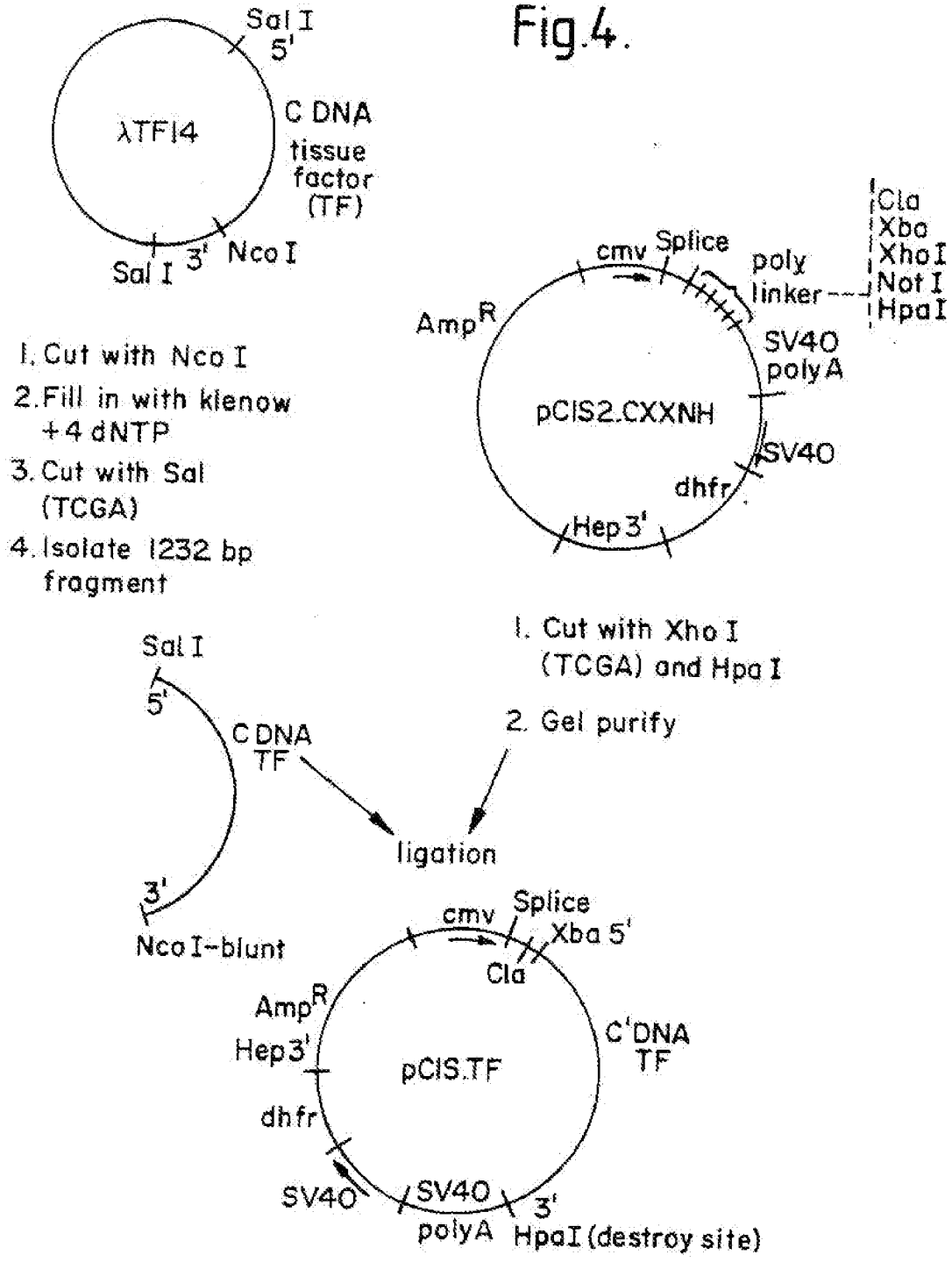
Sal I
5'
λTF14
C DNA
tissue
factor
(TF)
Sal I
3'
Nco I
1. Cut with Nco I
2. Fill in with klenow
+4 dNTP
3. Cut with Sal
(TCGA)
4. Isolate 1232 bp
fragment
cmv
Splice
poly
linker
Cla
Xba
Xho I
Not I
Hpa I
Amp R
SV40
poly A
pCIS2.CXXNH
SV40
dhfr
Hep 3'
1. Cut with Xho I
(TCGA) and Hpa I
2. Gel purify
Sal I
5'
C DNA
TF
3'
Nco I-blunt
ligation
cmv
Splice
Xba 5'
Cla
Amp R
Hep 3'
pCIS.TF
C'DNA
TF
dhfr
SV40
SV40
polyA
3'
Hpa I (destroy site)

Fig.5.